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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/624,098 | 07/24/2000 | Mario Tenuta | 2527-1A | 5268 |

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EXAMINER

NAFF, DAVID M

ART UNIT

PAPER NUMBER

1651

DATE MAILED: 01/15/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/624098

Applicant(s)

Tanaka et al

Examiner

Kaff

Group Art Unit

1651

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

Period of Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- ☒ Responsive to communication(s) filed on 10/28/01
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- ☒ Claim(s) 1-15+20 is/are pending in the application.
- ☐ Of the above claim(s) _____ is/are withdrawn from consideration.
- ☐ Claim(s) _____ is/are allowed.
- ☒ Claim(s) 1-15+20 is/are rejected.
- ☐ Claim(s) _____ is/are objected to.
- ☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

- ☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
- ☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
 - ☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been received.
 - ☐ received in Application No. (Series Code/Serial Number) _____.
 - ☐ received in this national stage application from the International Bureau (PCT Rule 1.7.2(a)).

*Certified copies not received: _____

Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____
- ☒ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Interview Summary, PTO-413
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Other _____

Office Action Summary

A response of 10/24/01 to a restriction requirement of 9/26/01 amended the claims by canceling claims 16-19, and adding new claim 20 dependent on claim 1. This amendment leaves only claims drawn to the invention of Group I as the elected invention.

5 Claims examined on the merits are 1-15 and 20 which are all claims in the application.

 The disclosure is objected to because of the following informalities: on page 4, lines 6 and 7 should be deleted and replaced with -- BRIEF DESCRIPTION OF THE DRAWINGS --, and on page 5 between lines
10 13 and 14, -- DETAILED DESCRIPTION OF THE INVENTION -- should be inserted to provide required headings. In describing the figures on pages 4 and 5, figures 1-5, 12 and 14, each are described as multiple figures having each of the multiple figures labeled by the number followed by a letter. For example, Figure 1 is described as "Figures 1a to 1k". However, the
15 Figure 1 drawing does not contain separate figures labeled 1a to 1k. This also applies to the other figures noted above. Furthermore, when the figures are referred to following page 5, no mention is made of the multiple figures of each figure described on pages 4 and 5. Additionally, there is no description of Figure 15 following the
20 description of Figure 14 on page 5.

 Appropriate correction is required.

 The following is a quotation of the second paragraph of 35 U.S.C.

112:

25 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4, 5, 9, 10 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5 In claim 4, the meaning of "x" in the formula " NH_4x " and " xNO_2 " is uncertain.

In claims 5, 9 and 10, the meaning of "ha" is uncertain. If this term has an art recognized meaning, this should be established.

10 In claim 20, the meaning of " $2 \mu\text{L H}_2\text{SO}_4\text{g/soil}$ " in defining buffering capacity of soil is unclear. Furthermore, how this buffering capacity is determined is uncertain.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

15 (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20 This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to
25 point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al (6,074,638) in view of Raskin et al (6,159,270) and Weltzien et al (4,919,702), and if necessary in further view of Behel Jr. (5, 366, 533).

5 The claims are drawn to a method of controlling soilborne pathogens in soil by adding to the soil a nitrogen containing material and a pH reducing agent to reduce the soil pH to below 5.5.

Anderson et al disclose that potato scab disease is known to be controlled by increasing soil acidity (col 3, lines 40-43).

10 Raskin et al disclose adding citric acid to soil to reduce the pH of the soil to 4.5-5.5 in removing contaminant metals in soil.

Weltzien et al disclose adding a fertilizer to soil that contains ascorbic acid (col 3, lines 19-29) and a nitrogen source (col 5, lines 25 and 34-37).

15 Babel Jr. discloses adding to soil a citrus by-product that provides citric acid in soil to complex with iron and make the iron available for plants (col 2, lines 55-66 and col 6, line 56).

When controlling potato scab disease by increasing soil acidity as disclosed by Anderson et al, it would have been obvious to add citric
20 acid to the soil to provide the increased acidity as suggested by Raskin et al, and if needed Babel Jr, disclosing adding citric acid to soil, and by Weltzien et al disclosing adding to soil a fertilizer containing ascorbic acid and a nitrogen source. Combining a nitrogen source with ascorbic acid as disclosed by Weltzien et al would have suggested
25 combining a nitrogen source with acid added to provide the increased soil acidity required to control potato scab disease as disclosed by Anderson

et al since a nitrogen source would have obviously been expected to provide nitrogen as a nutrient for a growth of a plant requiring nitrogen for growth. Providing a pH below 5.5 to control potato scab disease would have merely required routine experimentation to determine an optimum pH that provides a desired amount of control. The limitations of dependent claims would have been matters of obvious choice within the skill of the art in view of the disclosures of the references.

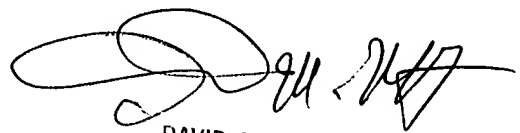
Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Naff whose telephone number is (703) 308-0520. The examiner can normally be reached on Monday-Thursday and every other Friday from about 8:30 AM to about 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, a message can be left on voice mail.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Wityshyn, can be reached at telephone number (703) 308-4743.

The fax phone number is (703) 305-3014 or 308-4242.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0196.


DAVID M. NAFF
PRIMARY EXAMINER
ART UNIT 126 57